



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,130	01/31/2002	Takahiro Ishihara	32739M072	5979
441	7590	11/12/2003	EXAMINER	
SMITH, GAMBRELL & RUSSELL, LLP 1850 M STREET, N.W., SUITE 800 WASHINGTON, DC 20036			DOTE, JANIS L	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 10/059,130	Applicant(s) ISHIHARA ET AL.	
	Examiner Janis L. Dote	Art Unit 1756	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 21 October 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended:—

The status of the claim(s) is (or will be) as follows:


Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-8.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____


 JANIS L. DOTE
 PRIMARY EXAMINER
 GROUP 1500
 1700

1. Applicants' arguments filed in the response after the final rejection on Oct. 21, 2003, are not persuasive for the reasons set forth in the final rejection and for reasons discussed infra:

In the response after the final rejection, applicants assert that the obviousness rejection over Sano combined with Kumashiro is unsound because Sano does not teach or suggest any nexus between percentage by volume of toner particles of 5 μm or less, and the grinding effect obtained. Applicants argue that "it is simply a coincidence that the proportion of toner particles of 5 μm or less, as observed in Sano's Examples 1 and 2, is within the range prescribed in the present invention." However, there is nothing "coincidental" about Sano's teaching. Sano is concerned throughout with the volume percent size distribution of toner particles, particularly the fine particles ($< 5 \mu\text{m}$), but also the large particles ($> 12 \mu\text{m}$). See Sano, Table 1, showing volume% in those ranges for each example. Sano also provides a formula relating the quantity (% by number) of toner particles "not greater than 5 μm " to the volume average particle size, which is in the range of 5.0 - 11.7 μm . Col. 2, lines 42-65. Preferable particle size is volume average particle size of 9 μm or less. Col. 3, lines 1-3. Toners satisfying such a distribution relation can exhibit improved charging stability and provide good dot reproducibility and clear and fog-free images. Col. 2, lines 62-67. As shown in Tables 1 and 2, the toners in

examples 1 and 2, which have a volume average particle size of 9.1 and 8.2 μm , 2.0 and 2.3 vol% of particles of 5 μm or less, respectively, and satisfy Sano's distribution relationship, yield superior images after 10,000 copies. These examples provide a person having ordinary skill in the art with reason and motivation to use such toners, which meet the size limitations recited in the instant claims, because they provide a reasonable expectation of successfully obtaining superior copy images. The reference need not have the same reasons as applicants for obtaining toners comprising 2.0 or 2.3% by volume of particles having a particle size of 5 μm or less.

Moreover, as discussed in the final rejection, the reasons for combining the references do not have to be those of applicants. Kumashiro provides reason, suggestion, and motivation for a person having ordinary skill in the art to use Kumashiro's particular wax dispersed as particles having a particle size of 1.2 μm in the toners disclosed by Sano.

Furthermore, the examiner is not "completely incorrect" about the relationship of "cleanability" and "filming," as asserted by applicants. In the "description of the prior art," the instant specification at page 1, lines 11-16, discloses that "filming is considered to occur by the following mechanism: Toner particles attached to the surface of the photoconductor remain on a cleaning member, for example a cleaning blade, and

under the heat produced by friction between the cleaning blade the rotating photoconductor and the pressure exerted by the cleaning blade, the binder resin and wax contained in the toner as its ingredients soften and deposit in the form of a thin film on the surface of the photoconductor." As discussed in the final rejection, paragraph 6, Table 2 in Sano reports that after 10,000 runs, the toners in Sano's examples 1 and 2 were not visually observed on the surface of the photoconductor after passing the photoconductor through a cleaning blade. See Sano, col. 10, lines 61-65, and Table 2. If no toner particles are observed on the photoconductor, it is reasonable to presume that no toner particles are attached to the photoconductor. Thus, based on the mechanism disclosed in the instant specification, it would appear that no filming would occur on the photoconductor. Hence, it appears that Sano teaches at least one of the properties sought by applicants.

Accordingly, it appears that the combined teachings of Sano and Kumashiro teach the two properties sought by applicants' invention. Thus, for the reasons discussed above and in the final rejection, the combined teachings of Sano and Kumashiro render obvious the toner recited in the instant claims.

Applicants' arguments with respect to the rejection over Asada combined with Sano are not persuasive for the reasons discussed in the final rejection. As discussed in the final

rejection, Asada's toner appears to possess both properties sought by applicants. Furthermore, as discussed above, Sano need not have the same reasons as applicants for obtaining toners comprising 2.0 or 2.3% by volume of toner particles having a particle size of 5 μm or less. Moreover, the reasons for combining the references do not have to be those of applicants. As discussed in the rejection in the final rejection, paragraph 4, Sano provides reason, suggestion, and motivation for a person having ordinary skill in the art to further process the toner in Asada's example 5 as taught by Sano to satisfy Sano's particle size distributions. Accordingly, the combined teachings of Asada and Sano render obvious the toner recited in the instant claims.